



Integrated Environmental Management Systems

What is EPA's DfE Program?

EPA's Design for the Environment Program partners with stakeholders to help businesses help the environment. DfE projects help businesses design products, processes, and management systems that are cost-effective, cleaner, and safer for workers and the public. The DfE goals are to

- ▶ Encourage businesses to incorporate environmental information into their decision criteria, and
- ▶ Effect behavior change to facilitate continuous environmental improvement.

To accomplish these goals DfE and its partners use several approaches including cleaner technology and life-cycle assessments, environmental management systems (EMS), formulation improvement, best practices, and green supply chain initiatives.

To date, the DfE Program has brought environmental leadership to over 2 million workers at over 170,000 facilities. Small- and medium-sized businesses recognize DfE as a unique source of reliable environmental (as well as performance and cost) information.

DfE's Approach to EMSs

EPA's Design for the Environment (DfE) Program has developed an enhanced EMS approach called Integrated Environmental Management Systems (IEMS) to help companies achieve continuous environmental improvement. IEMSs emphasize reducing risk to humans and the environment, pollution prevention, and wise resource management. DfE's IEMS combines continuous improvement principles and tools with proven environmental assessment methodologies.

Key IEMS components that might not be included in traditional EMSs are

- ◆ Paying close attention to process and material flows,
- ◆ Obtaining knowledge of chemicals used and their hazards and exposures,
- ◆ Conducting substitutes assessments that can include full-cost accounting, and
- ◆ Considering and selecting cleaner technologies.

IEMSs assist companies in making sound environmental decisions as part of daily business practices. As a result, IEMSs help companies to

- ◆ Reduce cross-media impacts and Use energy and other resources efficiently,
- ◆ Better manage the risk associated with using hazardous chemicals (both regulated and unregulated),
- ◆ Practice extended product and process responsibility, and
- ◆ Integrate environmental and worker safety and health requirements.

DfE's IEMS approach was piloted with several small and large screen printing companies and the Screenprinting & Graphic Imaging Association International. The pilots demonstrated that both small and large companies can develop and implement sophisticated, action-oriented IEMSs. Several of the pilot companies are applying for ISO 14001 certification.

What IEMS Materials Are Available?

To help organizations create and document their own IEMSs, DfE has developed an IEMS Implementation Guide (EPA 744-R-00-011), an IEMS Company Manual Template (EPA 744-R-00-012), and a website. The Implementation Guide walks an organization through the steps of developing an IEMS. It provides simple, thorough directions that are clear even to those unfamiliar with environmental management planning. The Guide includes worksheets, examples, and step-by-step guidance on process mapping, environmental policy development, risk assessment, and evaluating cleaner alternatives.

IEMS information and materials may be obtained by visiting the DfE website at www.epa.gov/dfe or by contacting EPA's Pollution Prevention Information Clearinghouse via email (ppic@epa.gov) or phone (202-260-1023).

Possible IEMS Roles for Lead Organizations, Associations, Technical Assistance Providers, and Large Companies

A lead organization such as an association, a technical assistance provider, or a large company can greatly facilitate development of IEMSs among its members, clients, or small suppliers. DfE's IEMS experience shows that the IEMS development process can be much more cost- and time-efficient and more fun if a lead organization takes on common activities, such as developing a basic process map or providing group training, that each company would otherwise do separately. Some additional ways in which a lead organization could help companies with IEMSs include

- ◆ Adapt the IEMS Implementation Guide and other tools to reflect a given industry sector's unique conditions,
- ◆ Organize and lead participating companies to develop an IEMS,
- ◆ Develop sector-specific pollution prevention and regulatory information,
- ◆ Help establish environmental improvement targets and evaluate results, and
- ◆ Recognize or certify companies that participate and demonstrate results.

Opportunities For IEMS Partnerships With DfE: If you are interested in becoming an IEMS partner and in leading IEMS efforts for an industry group or supply chain call DfE at 202-260-1678.

